From:
To: ; Fleming, Sheila;

Subject: RE: Interesting article about remodeling VOCs...

Date: Wednesday, August 06, 2014 4:44:15 PM

Yes, I would like to know what sort of bake out (if any) they did. One of the upshots of the article is that even low-VOC stuff puts out enough that it's still important to do that step.

It's not encouraging that ASHRAE has reduced their ventilation guidelines. Maybe it's because so many buildings have gone back to open space layouts. That was a big part of the reason why our ventilation was so bad in the 80s – this building was originally designed to be open space, without even any walls between occupied space and the elevator lobbies. Apparently, the open-space fad of the 70s wasn't just a workplace concept, it allowed building designers to put in a lot less ventilation – thus saving money and energy (especially encouraged after the oil crises). When buildings remodeled and added walls, the ventilation became woefully inadequate in the occupied spaces until sick building syndrome would force them to upgrade it.

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U.S. EPA Region 10 1200 6th Ave, OEA-095, Seattle, WA 98101 206-553- **(b)** 

From: (b) (6)(b) (6)

Sent: Wednesday, August 06, 2014 3:07 PM

**To:** Fleming, Sheila; (b) (6)(b) (6)

Cc: (b) (6)(b) (6)

Subject: RE: Interesting article about remodeling VOCs...

Maybe what we need is not the ventilation or cooling, but to leave the heaters on all day and night for a few days? From remodeling article

After the work is done—whether it's an interior paint job or a glue-down carpet—an additional way to clear the air is with a bake out. Dr. Robert Emery, vice president for safety, health, environment, and risk management at The University of Texas Health Science Center at Houston, recommends doing it after adding any VOC-emitting product, whether it's paint, carpet, or new furniture, to a home or building. He says that the university has had great success using this approach.

"After the work is done, we elevate temperatures in the room to 85 degrees or so for 24 to 48 hours." The heat accelerates evaporation, driving the volatile compounds out of the material so they can be removed by the building's air handling system.

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From: (b) (6)(b) (6)

Sent: Wednesday, August 06, 2014 2:25 PM

**To:** (b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)

Cc: Fleming, Sheila

**Subject:** RE: Interesting article about remodeling VOCs...

## http://en.wikipedia.org/wiki/Sick\_building\_syndrome

"The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recently revised its ventilation standard, ASHRAE Standard 62.1-2013 Ventilation for Acceptable Indoor Air Quality (Tables 6.2.2.2.1) reduces previous minimum of 15 cfm of outdoor air per person (20 cfm/person in office spaces) to 10 CFM per classroom person and 5 CFM per office occupant"

This standard of 10 cfm of outdoor air per person may be something quantitative to look for in the specs of the HVAC for our floor.

Of course, even if our system accomplishes this minimum, it's clearly not enough given the acute offgassing scenario.

From: (b) (6)(b) (6)

Sent: Wednesday, August 06, 2014 12:59 PM

To: (b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)(b) (6)

**Cc:** Fleming, Sheila

Subject: Interesting article about remodeling VOCs...

...which questions the use of total VOCs as an adequate measure of IAQ. Perhaps we should look at the MSDSs – this article gives some idea of what to look for. We should also ask if they did a bake out, and if so, for how long. Perhaps we can get them to do another.

http://www.remodeling.hw.net/business/regulations/low-voc-trust-but-verify

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